5

10

ABSTRACT OF THE DISCLOSURE

A method and apparatus for performing a built-in self-test ("BIST") on an integrated circuit device are disclosed. A BIST controller comprises a logic built-in self-test ("LBIST") engine capable of executing a LBIST and storing the results thereof and a multiple input signature register ("MISR"). The LBIST engine includes a LBIST state machine; and a pattern generator seeded with a first primitive polynomial. The MISR is capable of storing the results of an executed LBIST, the contents thereof being stored per a second primitive polynomial. A method for performing a LBIST comprises seeding a pattern generator in a LBIST engine with a first polynomial; executing a LBIST using the contents of the pattern generator; and storing the results of an executed LBIST in a MISR utilizing a second primitive polynomial.